CHAPTER VI

SUMMARY OF FINDINGS, SUGGESTIONS AND CONCLUSION

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6.1 INTRODUCTION

For a healthy economy of a country, the most important requirement is a well knit and effective transport system as it is only good and well is an important bloodstream for the development of the economy of a country. Transport systems are essential for the movement of both goods maintained system that helps quick, smooth and fast movement of goods and passengers, which activity forms the backbone of both the cultural and business activities of a country. The economic development requires effective transport system that provides the basic infrastructure on which other economic activities grow and prosper. TNSTC bus services are a good service system and the people of remote towns, cities and villages happily avail of this service. Transportation creates wealth, enhances the standards of living and contributes materially to the general welfare. The following are the summary of findings and suggestions of this study.

6.2 SUMMARY OF FINDINGS

The study has been based on both primary and the secondary data. The primary data were collected from the general public that is those who have used the TNTSC bus services in Tirunelveli District. The secondary data have been collected from the records of district divisional office, published and unpublished books, journals, periodicals, and through websites. The researcher has used the statistical tools like simple Percentage, Sign Test, Mean Score, Cronbach’s Alpha Test and Kendal Co-efficient of Concordance, K.S Test, Garrett Ranking, Chi-square Test, Reliability Test, Factor Analysis. This study has covered the satisfaction of passengers towards the services provided by the TNSTC buses in Tirunelveli District.
601 passengers were taken for the study. Based on the analysis, the following findings are arrived at from the study:

**Results of Socio-economic Profile of the Passengers**

A sample of 601 passengers from the public is taken for the survey under satisfied random sampling method.

- It is clear that a majority (65.56%) of the passengers are male.
- It is concluded that a sizeable number (49.44%) of the passengers belong to the age group between 40-50 years.
- As per the present study, a vast majority (79.87%) of the passengers are married.
- It is evident that a considerable number (47.92%) of the passengers are graduates.
- It is understood that a sizeable portion (28.94%) of the passengers are government employees.
- Most (33.61%) of the passengers are earning a monthly income between ₹20,000 and ₹25,000.
- The study highlights that a majority (51.41%) of the passengers have 4-5 members in their families.
- Three-fourths of the passengers used only the TNSTC bus services in Tirunelveli District.
- A considerable number (31.78%) of the passengers travel between 10 and 20 kms.
It is evident that a vast majority (77.14%) of the passengers avail TNSTC bus services for more than 9 years.

It is concluded that a majority (50.25%) of the passengers go to work spot by TNSTC buses.

**Other Modes of Transport**

- It can be concluded that a majority (61.06%) of the passengers explain that they have other modes of transport in Tirunelveli District.
- It is clear that a majority (64.04%) of the passengers use motor cycles as the other mode of transport.
- From the analysis, it is clear that a vast majority (88.35%) of the passengers travel by TNSTC buses in peak hours between 8 a.m. and 10 a.m.
- As per the survey made, a majority (66.06%) of the passengers said that they have adequate bus services in the routes.
- It is observed that a majority (77.87%) of the passengers said that the TNSTC bus crew members do not maintain a time schedule.
- The study highlights that a sizeable number (47.37%) of the passengers have expressed that TNSTC crew members ply in convenient timings.
- Out of 601 passengers, a majority (58.17%) of the passengers felt that TNSTC bus timings are convenient to attend to their work.
- As per the investigation made by the researcher, a vast majority (85.54%) of the passengers told that the TNSTC buses do not stick to the time schedules.
- The study reveals that a majority (55.45%) of the passengers said that they do not require any changes in the TNSTC bus timings.
As per the present study, a vast majority (80.18%) of the passengers pleaded for a change in TNSTC bus timings.

A considerable portion (48.88%) of the passengers said that they are not interested in pleading for a time change in the TNSTC bus timings.

It is understood that a majority (51.75%) of the passengers opined that TNSTC buses arrived and departed at scheduled timings.

A majority (51.75%) of the passengers stated that the conductors do give correct changes to the passengers at the time of journey.

It is concluded that a majority (84.24%) of the passengers complained of non-availability of changes with the conductors.

It is evident that a vast majority (81.70%) of the passengers of TNSTC buses expected the bus conductors to announce the names of bus stops.

This study shows that a considerable portion (44.40%) of the passengers opined that the passengers might be new to the places.

A majority (77.20%) of the passengers stated that there are more breakdowns during the time of journey in Tirunelveli District.

The Garrets Ranking Technique

The Garrets Ranking Technique is used in order to ascertain the Reasons for the regular TNSTC buses assigning. Break-downs during the journey, Passengers’ problems related to crew behaviour and that of co-passengers are the important variables for analysis by using Garret Ranking Technique and the results are given in the following pages:
Reasons for the Irregular Arrival and Departure Timings of TNSTC Buses

‘Lack of Punctuality of conductors and Drivers has been ranked as the first factor for the irregular arrival and departure times of TNSTC buses, ‘Too many stops’ has been ranked second, ‘Poor Road Conditions’ is ranked third, followed by ‘Slow Driving’ in fourth rank, ‘Coercion by other Bus Crew’’ is given the fifth rank, ‘Waiting for Customers’ is ranked as the sixth and ‘Accident’ as the seventh rank for the irregular arrival and departure of TNSTC buses in Tirunelveli District.

Experience of Break-downs during the Journey

It is understood that ‘Poor Maintenance’ has been ranked as the first factor for the breakdown of TNSTC buses. ‘Poor Road Conditions’ has been ranked second, ‘Careless Driving’ is ranked third, followed by ‘Overloading’ as the fourth rank and ‘Speed Driving’ is ranked as the fifth for the breakdown of TNSTC buses in Tirunelveli District.

Passengers’ Problem Related to Crew Behaviour

‘Impolite Behaviour of the Crew’ has been ranked as the first factor among the passengers’ problem related to crew behaviour of TNSTC buses. ‘Negligence in providing seats to the disabled passengers has been ranked second, ‘Unnecessary Delay in Stops’ is ranked third followed by ‘Inadequate time for boarding and alighting’ in fourth rank, ‘Quarrel with other Bus Crew’ is ranked as the fifth one and ‘Failure to give changes’ is ranked as the sixth one for the passengers’ problems related to crew behaviour of TNSTC passengers in Tirunelveli District.

Passengers’ Problems Related to Co-passengers

‘Smoking inside the Bus’ has been ranked as the first factor among the Passengers problems related to co-passengers of TNSTC buses. ‘Drunken State of Passengers has been ranked second, ‘Spitting and Vomiting in the Bus’ is ranked
third followed by ‘Women with Crying Babies in fourth rank and ‘Quarrel among Passengers is ranked as the fifth one among the Passengers problems related to Co-passengers of TNSTC buses in Tirunelveli District.

Other Problems of the Passengers

‘Overcrowding’ has been ranked as the first factor among the other problems faced by the passengers of TNSTC buses. ‘Uncomfortable Journey’ has been ranked second, ‘Poor Conditions of the Buses’ is ranked third followed by ‘Dress Getting Spoiled’ in fourth rank, ‘Picking Pockets’ is ranked as the fifth one and ‘Tedious Journey’ occupies the sixth rank among the other problems faced by the passengers of TNSTC buses in Tirunelveli District.

Results of Chi-square

Chi-square test was applied to find out the relationship between socio-economic variables, such as, gender, age, marital status, educational status, occupational status, monthly income, and size of the family and the level of satisfaction towards the various facilities available in TNSTC buses.

- The gender of the passengers influences the passengers’ level of satisfaction towards the various facilities available in TNSTC buses.
- The age of the passengers influences the level of satisfaction of the passengers towards the various facilities available in TNSTC buses.
- The marital status of the passengers influences the level of satisfaction of the passengers towards the various facilities available in TNSTC buses.
- The educational status of the passengers influences their level of satisfaction of the passengers towards the various facilities available in TNSTC buses.
The occupational status of the passengers influences their level of satisfaction of the passengers towards the various facilities available in TNSTC buses.

The monthly income of the passengers influences the level of satisfaction towards the various facilities available in TNSTC buses.

The size of the family of the passengers influences the level of satisfaction of the passengers towards the various facilities available in TNSTC buses.

Application of Factor Analysis

Factor Analysis has been used to analyse the opinions of the passengers about the behaviour of drivers and conductors. Moreover by grouping the variables, normality has to be ascertained. Hence for ascertaining the normality, KMO Test has been used.

KMO Test is 0.747 which indicates that the degree of common variance among the variables is quite high. Therefore factor analysis can be conducted. The study shows that there are 13 factors identified by the researcher for collecting the opinion of the passengers about the behaviour of drivers and conductors in Tirunelveli District. The factors are characterized as shown below:

- Receiving changes from conductors with 0.863, Sudden break 0.861, Overloading of passengers 0.860, Stopping of buses at scheduled stops 0.806 and Providing first aid by the crew at the time of accidents 0.879. These are the statements with the highest factor loadings under the dimensions Behaviour of Conductors and Drivers (F1), Driving Efficiency (F2), Overloading of Passengers and Accepting Luggages (F3), Boarding and Alighting (F4) and Safety (F5). Thus, these variables are the identified dimensions (factors), which influence the opinions of the passengers about the behaviour of drivers and conductors.
The Results of “t” Test

The ‘t’ Test has been applied to trace the quality of services of public and private sectors transport in Tirunelveli District. A null hypothesis is framed to test the quality of services of public and private sector transports. There is no significant difference between the opinion of the passengers towards the public and private sectors transports provided in Tirunelveli District. The ‘t’ test has proved that there is a significant difference between the opinion of the public and the private sectors transports about the quality of services provided in Tirunelveli District.

Kendall Co-efficient of Concordance Results

The Kendalls Co-efficient of Concordance has been used to find out the opinion of passengers about the social responsibilities of TNSTC Crew in Tirunelveli District. This study shows that there is a high level of similarity among the opinion about the responsibilities of the TNSTC/Crew because the calculated value is greater than Table value at 5 per cent level of significance.

Opinion of Passengers towards the Punctuality and Regularity of the TNSTC Bus Services in Tirunelveli District - K.S. Test Results

K.S. Test was applied to assess the passengers’ opinion about punctuality and regularity of the TNSTC services in Tirunelveli District. It shows that there is a difference in the ratings given by the passengers about departure time, about waiting time, reaching terminals time, alternative arrangements made by the operators in case of breakdown, stopping of buses at the scheduled stops and cancellation of buses trips.
Opinion of the Passengers with Regard to the various Facilities Provided by the TNSTC Buses in Tirunelveli Division – Results of Sign Test

The results of Sign Test with regard to the responses of the passengers towards the various facilities provided by the TNSTC buses in Tirunelveli District show that there is a significant difference due to a large number of responses of passengers of TNSTC buses stating that there are various facilities provided in TNSTC buses. Only one view is an exception to this.

6.3 SUGGESTIONS

In the light of the above findings, the following suggestions are made to improve the quality of TNSTC bus services in Tirunelveli District:

1. The Government of Tamilnadu must allocate enough funds on a priority basis for the proper maintenance of roads in Tirunelveli District.

2. Due to the increasing prices of diesel, the bus fares also increase very frequently. This can be avoided by replacing the high cost diesel with any low cost fuel which in turn can reduce the bus fares.

3. During the last five years, due to hike in prices of chassis, battery, tyres and tubes and the like, the cost of operation of vehicles is increasing. Hence the Government of Tamilnadu has to take necessary actions to reduce the multiple taxes imposed on such goods.

4. Emergency Exit provisions should be made available in every TNSTC buses to minimise the accidents.

5. The Government of Tamilnadu should maintain the roads periodically. Then only the condition of the buses will be good and the passengers can travel with comfort.
6. The Government of Tamilnau should pay attention on promoting less polluting alternative modes of transport which offer better quality of services at a reasonable cost.

7. The Government of Tamilnadu should take steps to educate the people on the necessity to maintain the roads in a good condition.

8. The operational cost is increasing day-by-day, as the cost of fuel and spares are increasing frequently. In order to reduce the operational cost and also to give comfortable services to the passengers, the corporation has to plan to buy new buses to compete with the private operators and to improve the quality of services to the passengers in Tirunelveli District.

9. The well-trained mechanical engineers in various parts of our country should be asked to conduct awareness programmes to reduce the mechanical defects. This will minimise the vehicle breakdowns that occur largely due to mechanical defects in TNSTC buses in Tirunlveli District.

10. TNSTC bus operators may conduct Yoga classes for the benefit of drivers and conductors in order to reduce their mental stress.

11. The TNSTC bus operators in Tirunelveli District should give Best Driver Award and Best Conductor Award to encourage the habit of fuel economy, safe driving and time management.

12. TNTSC bus drivers should avoid talking with the passengers and conductors. This way of approach will minimize the accidents in future.

13. Heavy traffic jam occurs in Tirunelveli Corporation areas. This should be avoided by means of providing two or three alternative routes to that particular place.
14. TNSTC bus services should update technology check, the speed and the capacity of the buses should be increased which, in turn, reduce the time taken for transportation.

15. Attention should be focused on providing good seating arrangement and comfortable seats. It will encourage the people to travel by bus.

16. The government should allocate adequate resources for the development of Transport Corporations.

17. TNSTC bus operators should provide frequent buses services to over populated areas in order to reduce the crowd.

18. While driving the buses, the drivers should not play the tape-recorders.

19. The Government of Tamil Nadu has passed an order to keep First Aid Kits in all the TNSTC buses with the required medicines. The drivers and conductors should be trained to provide first aid treatment to the needy passengers in time.

20. In the Southern Districts of Tamil Nadu, the road condition is very poor. The Government collects the road taxes for the purpose of improving the road conditions and the overall performance of road conditions in Southern Districts. The Government authority should take steps to improve the road conditions.

21. A well-developed network of roads offers various benefits to the economy and the society. By the movement of raw materials from the sources to the place of production and finished goods to the places of consumption, a developed network of roads indirectly promotes the movement of goods and services from the places of surplus to the places of scarcity.
22. In order to avoid foot board travel leading to accidents, effective awareness campaigns should be conducted by using the slogans like, “foot board travel may cost your life and not peep out from a moving bus.”

23. The government may take up the implementation of the road safety policies with a time-bound programme on a priority basis.

24. Following steps should be taken by the TNSTC bus service operators to reduce the number of accidents:

a. Drivers must be sent for regular training programmes to upgrade their driving skills.

b. Stress among drivers and conductors should be reduced with the help of Yoga and meditation by the TNSTC bus operators.

c. A notification should be sent to all the drivers about not using of cell phones during driving the TNSTC buses in Tirunelveli District.

d. The TNSTC bus operators of Tirunelveli District should take action against drivers and conductors if they consume alcohol during the duty time.

e. The TNSTC bus operators of Tirunelveli District should give special incentives and rewards to TNSTC bus drivers for an accident-free record.

25. Awareness camps should be conducted by the transport department through Regional Transport Offices at Schools and Colleges about the dangers of overloading in TNSTC buses.

26. For road safety more number of meetings should be conducted between the TNSTC bus operators and the Law Enforcement Agencies.
27. Active co-operation of the passengers is the pre-requisite for the smooth operation of the bus services. So the public should extend their active co-operation to the TNSTC bus drivers and conductors for the smooth operation of bus services.

28. TNSTC bus operators should instruct the conductors of the TNSTC buses to announce the name of each and every stopping as the new passengers may not know the names of the bus stops.

29. It is suggested that the passengers should give exact fare for getting their tickets and thereby reducing the burden of the conductors.

30. It is also suggested that the TNSTC bus operators should not give any overtime work to the drivers and conductors. It will boost the morality of the TNSTC divers and conductors.

31. A major expectation of most of the passengers is to ply more number of TNSTC buses during the festival times and long holidays. This will help to reduce the anxiety of the passengers to go easily to all parts of Tamil Nadu.

32. It is suggested that the TNSTC bus operators should ply more number of buses in peak hours between 8 a.m. and 10 a.m.

33. It is recommended that bus transport sectors should identify the ways to enhance the level of satisfaction of the passengers as well as the quality of services. It is important to evaluate new techniques and estimate the level of satisfaction and provide more quality services to ensure the level of satisfaction of the passengers.
6.4 CONCLUSION

A good, effective and well maintained transport is an essential requisite for any healthy economy. Without a properly developed transport system, the socio-cultural and economic activities of any country cannot be robust. A well knit transport helps quick and fast improvement of goods and passengers and as a result rural labourers are able to find jobs in towns and cities. The agricultural produce like vegetables can reach the markets in towns and cities only through a well maintained transport system. In fact a well developed and properly maintained transport system becomes an effective indicator to evaluate and decide the economic development of any nation.

The TNSTC buses have helped in sharing the loads and reducing the rushes during the peak hours. Rural vendors and farmers have found a convenient transport in TNSTC bus services for ferrying their goods to the city markets. Their importance in the mobility of labour is a contributing factor to the economic development of the country.

From the above analysis it has come to light that TNSTC bus services can render better services to the passengers. It has also got a few shortcomings. It is hoped that the TNSTC bus services will improve the services provided to the satisfaction of passengers in Tirunelveli District and its performance in the years to come and earn the goodwill of the public.

It is clear that the TNSTC operators are able to render efficient services to the fullest satisfaction of the passengers in Tirunelveli District and thus it is also observed that the passengers and the crew members are facing many problems. To overcome the problems, TNSTC transport operators should be in a position to render efficient services to the fullest satisfaction of the travelling public of Tirunelveli District.
6.5 SCOPE FOR FURTHER STUDIES

1. A Study on the Problems and Prospects of TNSTC bus Services in the Southern Cities of Tamilnadu.


3. A Study on Marketing of TNSTC bus services in South Tamilnadu.
